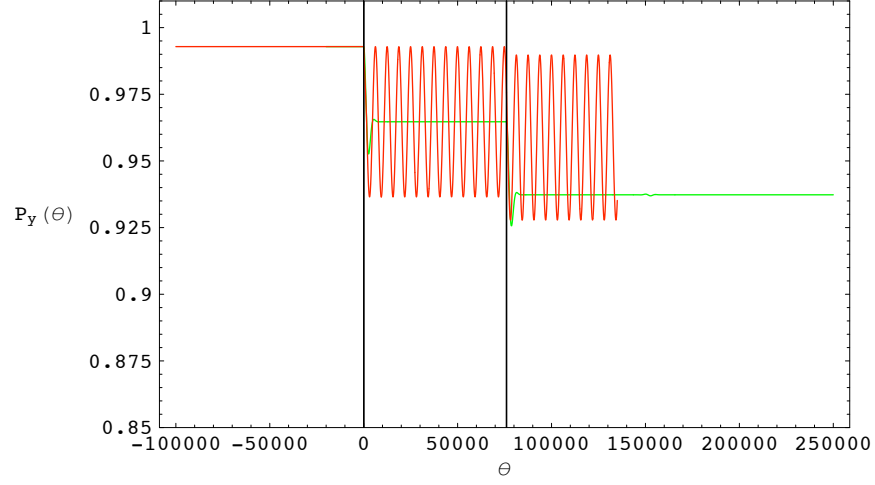


Case 1: Reference case



$\theta = 2\pi \times \text{turn number}$.

Spin tune nominal = 4.6.

Spin tune jumps at $\theta = 0$ from 0.599 to 0.601, and jumps at $\theta = 2\pi \times 12100$ from 0.601 to 0.599. Two vertical lines are the two jumps.

Resonance strength $|\epsilon| = 0.00012$.

Red is simple particle polarization P_y .

Green is polarization of a beam with Gaussian energy distribution with $\sigma_E/E = 0.0001$. Spin echo (weak echo for this set of parameters) occurs at $\theta = 4\pi \times 12100$.